

Fig. 1

```

for (i=0; i<n; i++)
    y[i] = x[i] + 1;

```

Fig. 2A

```

// Initialization
mov pr.rot = 0           // Clear all rotating predicate registers
cmp.eq p16,p0 = r0,r0    // Set p16=1
mov ar.lc = 4            // Set loop counter to n-1
mov ar.ec = 3            // Set epilog counter to 3

// loop
loop:
    (p16) ldl r32 = [r12],1 // Stage 1: load x
    (p17) add r34 = 1,r33   // Stage 2: y=x+1
    (p18) stl [r13] = r35,1 // Stage 3: store y
    br.ctop.sptk.few loop   // Branch back

```

Fig. 2B

```

// loop
loop:
  310 { (p16) ldl r32 = [r12],1    // Stage 1: load x
      (p17) add r34 = 1,r33      // Stage 2: y=x+1
      (p18) stl [r13] = r35,1    // Stage 3: store y

// loop
  320 { (p63) ldl r127 = [r12],1   // Stage 1: load x
      (p16) add r33 = 1,r32       // Stage 2: y=x+1
      (p17) stl [r13] = r34,1     // Stage 3: store y

// loop
  330 { (p62) ldl r126 = [r12],1   // Stage 1: load x
      (p63) add r32 = 1,r127      // Stage 2: y=x+1
      (p16) stl [r13] = r33,1     // Stage 3: store y

// loop
  340 { (p61) ldl r125 = [r12],1   // Stage 1: load x
      (p62) add r31 = 1,r126      // Stage 2: y=x+1
      (p63) stl [r13] = r32,1     // Stage 3: store y

```

Fig. 3

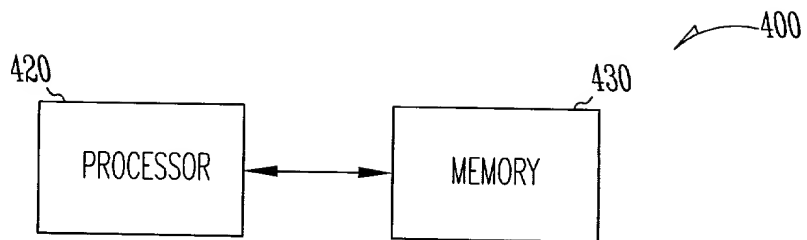


Fig. 4